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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,925	05/20/2006	Oron Yacoby-Zeevi	30337	8027

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EXAMINER	
DIBRINO, MARIANNE NMN	
ART UNIT	**PAPER NUMBER**
1644	
MAIL DATE	**DELIVERY MODE**
10/16/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/559,925	YACOBY-ZEEVI ET AL.	
	Examiner	Art Unit	
	DiBrino Marianne	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/8/08,10/14/08,9/5/08,9/25/07,12/8/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,9-22,24,32,142,146,151-154,172-195 and 198* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,9-22,24,32,142,146,151-154,172-195 and 198* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 December 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :5/2/08,3/27/09,1/1/09,5/10/09,1/18/07.

DETAILED ACTION

1. Applicant's amendments filed 12/8/05, 12/5/06, 9/25/07, 9/5/08 and 10/14/08 and Applicant's response filed 8/12/08 are acknowledged and have been entered.

2. Applicant's election of antibody HP3/17 linked to a drug in Applicant's response filed 8/12/08 is acknowledged.

Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP 818.03(a)).

Claims 1, 9, 18-22, 24, 32, 142, 146, 151, 152, 154, 172-174, 176-178, 185, 186 and 188-190 read on the elected species.

Upon a search of the prior art, examination has been extended to include the species recited in instant claims 175, 179, 180, 181, 182 and 191-193, the species of monoclonal antibodies (besides the elected species HP3/17) recited in instant claims 154 and 172, and the species recited in claims 10-17, 175, 179-184, 187, 191-195 and 198.

Accordingly, claims 196 and 197 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to non-elected inventions.

Claims 1, 9-22, 24, 32, 142, 146, 151-154, 172-195 and 198 are currently being examined.

3. Color photographs and color drawings are not accepted unless a petition filed under 37 CFR 1.84(a)(2) is granted. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

> The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings and black and white photographs have been satisfied. See 37 CFR 1.84(b)(2).

Applicant has only submitted one set of the color drawings, and has not amended the first paragraph of the brief description of the drawings section of the instant specification as enunciated supra.

4. The use of the trademarks PROSTASCINT, SEPHAROSE, RITUXIN, HERCEPTIN, PROSTASCINT and HUMASPECT have been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

5. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which Applicant may become aware in the specification.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1, 9-22, 24, 32, 142, 146, 151-154, 172-195 and 198 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

The amendatory material not supported by the disclosure as originally filed is as follows: "imageable molecule". The specification discloses at [0207] "External radio imaging can also be used, wherein the drug is replaced with an imageable radio isotope." Thus, the genus of "imageable molecule" is claimed whereas the originally filed disclosure

provides support for a complex of the claimed antibody with an imageable radio isotope, one species of "imageable molecule."

9. Claims 1, 9-22, 24, 32, 142, 146, 151-153, 173-195 and 198 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

Applicant has claimed a broad genus of an isolated antibody and pharmaceutical composition thereof or hybridoma producing said antibody, said antibody (1) capable of specifically binding to or being elicited by at least one epitope of a heparanase protein comprising the amino acid sequence of any of SEQ ID NO: 1-5 and 11, or (2) the said antibody specifically binds to, is capable of binding to, or is elicited by at least one epitope of a heparanase protein comprising any of SEQ ID NO: 1-5 and 11 wherein the at least one epitope comprises an amino acid sequence as set forth in any of SEQ ID NO: 6-10 (*i.e.,* comprises a subsequence of any of SEQ ID NO: 6-10), including wherein the antibody is linked to a drug or imageable molecule, and including the remaining limitations recited in the claims. In addition, Applicant has claimed a broad genus of isolated antibody that comprises a polyclonal antibody.

Applicant has not adequately described the subgenus of isolated antibody that is capable of specifically binding to "at least one epitope," nor including one that binds an epitope that comprises a subsequence of any one of SEQ ID NO: 6-10 plus or minus any undisclosed N-and-or-C-terminal flanking sequences (*i.e.,* wherein at least one epitope comprises "an" amino acid sequence as set forth in any of SEQ ID NO: 6-10, rather than comprises "the" amino acid sequence as set forth in any of SEQ ID NO: 6-10).

The guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, § 1 "Written Description" Requirement make clear that if a claimed genus does not show actual reduction to practice for a representative number of species, then the Requirement may be alternatively met by reduction to drawings, or by disclosure of relevant, identifying characteristics, *i.e.,* structure or other physical and or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics, sufficient to show the Applicant was in possession of the genus (Federal Register, Vol. 66, No. 4, pages 1099-1111, January 5, 2001, see especially page 1106 column 3).

The specification discloses isolated monoclonal antibodies that can bind to one epitope of heparanase protein, such as for example one that is generated against SEQ ID NO: 9 (pages 62-65). The specification also discloses in Table 2 that SEQ ID NO: 6-10 are functional peptide epitopes of heparanase.

With regard to the issue of an isolated antibody binding to or being elicited by at least one epitope, it is known in the art that specificity of an antibody is defined by its ability to discriminate between the antigen against which it was made and any other antigens, selectivity is the ability of an antibody to discriminate in an all-or-none manner, between two related ligands, and cross-reactivity is defined as the ability to react with related ligands other than the immunogen (Evidentiary reference Paul W.E. Fundamental Immunology, 5th Edition, Lippincott Wlliams & Wilkins, Philadelphia, 2003, pages 86-89). It is also known in the art that a polyclonal antiserum contains multiple antibodies with different epitope-binding specificities, however, these antibodies are not "an isolated antibody" as recited in the instant claims.

Evidentiary reference Parren and Burton (Science 2009, 323: 1567-1568) discuss a two-in-one designer mAb that was engineered to recognize two different antigens, both with high affinity. The binding to VEGF is primarily mediated by light-chain residues and binding to HER2 is primarily mediated by heavy chain residues, wherein the antibody can not bind to both antigens simultaneously. Parren and Burton teach that approaches to generate antibody molecules with multiple binding moieties have been tried before, such as by fusing two or more antibody binding sites into a single molecule to increase binding avidity or bind multiple antigens (see entire reference).

As discussed above, the structure of the isolated antibody capable of specifically binding at least one epitope (or are elicited by at least one epitope) of heparanase protein that is any of SEQ ID NO: 1-5 and 11 is not disclosed, except for those that bind and are elicited by only one epitope of any of SEQ ID NO: 1-5 and 11, including being elicited by an epitope that comprises the sequence as set forth in any of SEQ ID NO: 6-10. Therefore, it appears that the broad genus of antibodies claimed by Applicant lacks adequate written description because there does not appear to be any disclosed correlation between structure of the heparanase protein bound by the antibody and the function of the antibody in being capable of specifically binding more than one epitope of said protein, nor does the specification disclose the subsequence of one of SEQ ID NO: 6-10 plus or minus other undisclosed flanking sequences that confers the property of the antibody being able to bind the epitope. Further, the examples of antibodies disclosed in the specification are not representative of the claimed genus because they are monoclonal antibodies that bind to and are elicited by one epitope of the said protein, whereas the breadth of the claims reads on an isolated antibody binding to and/or elicited by more than one epitope of the protein. In addition, the examples of antibodies disclosed in the specification are not representative of the claimed genus because they are monoclonal antibodies that bind and are elicited by one epitope of the said protein, whereas the breadth of the claims reads on an isolated antibody binding to or elicited by a sequence *comprising* a subsequence of the epitope rather than *consisting of* the epitope.

With regard to an isolated antibody comprising a polyclonal antibody, Applicant does not

provide a representative number of species, as the polyclonal antibodies described in the instant specification are present in the form of polyclonal antisera (paragraph spanning pages 32-33).

As such a skilled artisan would reasonably conclude that Applicant was not in possession of the full breadth of the claimed genus of antibodies.

10. Claims 154 and 172 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is apparent that the monoclonal antibodies HP130, HP 239, HP 108.264, HP 115.140, HP 152.197, HP 110.662, HP 144.141, HP 108.371, HP135.108, HP 151.316, HP 117.372, HP 37/33, HP3/17, HP 201 and HP 102 are required to practice the claimed invention. As required elements, they must be known and readily available to the public or obtainable by a repeatable method set forth in the specification. If it is not so obtainable or available, the enablement requirements of 35 USC 112, first paragraph, may be satisfied by a deposit of the pertinent cell line which produces this antibody. See 37 CFR 1.801-1.809.

If the deposit was made under the provisions of the Budapest Treaty, filing of an affidavit or declaration by applicants, assignees or a statement by an attorney of record over his or her signature and registration number stating that the deposit has been made under the provisions of the Budapest Treaty and that all restrictions upon public access to the deposit will be irrevocably removed upon the grant of a patent on this application is required.

In addition to the conditions under the Budapest Treaty, applicant is required to satisfy that all restrictions imposed by the depositor on the availability to the public of the deposited material will be irrevocably removed upon the granting of a patent in U.S. patent applications.

If the deposit has not been made under the Budapest Treaty, then in order to certify that the deposit meets the criteria set forth in 37 C.F.R. 1.801-1.809, an affidavit or declaration by applicants or someone associated with the patent owner who is in a position to make such assurances, or a statement by an attorney of record over his or her signature, stating that the deposit has been made at an acceptable depository and that the following criteria have been met:

(A) during the pendency of this application, access to the invention will be afforded to the Commissioner upon request;

(B) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;

(C) the deposit will be maintained in a public depository for a period of 30 years after the date of deposit or 5 years after the last request for a sample or for the enforceable life of the patent whichever is longer;

(D) a viability statement in accordance with the provisions of 37 C.F.R. 1.807;
(E) the deposit will be replaced should it become necessary due to inviability, contamination, or loss of capability to function in the manner described in the specification.

Furthermore, unless the deposit was made at or before the time of filing, a declaration filed under 37 C.F.R. 1.132 is necessary to construct a chain of custody. Hybridoma…producing antibody… was deposited after the time of filing. The declaration, executed by a person in a position to know, should identify the deposited hybridoma by its depository accession number, establish that the deposited hybridoma is the same as that described in the specification, and establish that the deposited hybridoma was in Applicant's possession at the time of filing. *In re Lundak*, 27 USPQ 90.

Amendment of the specification to recite the date of deposit and the complete name and address of the depository is required. As an additional means for completing the record, applicant may submit a copy of the contract with the depository for deposit and maintenance of each deposit.

NOTE THE CURRENT ATCC DEPOSITORY ADDRESS
American Type Culture Collection, 10801 University Boulevard, Manassas, VA 20110-2209

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:
> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the Applicant regards as his invention.

12. Claims 1, 9-22, 24, 32, 142, 146, 151-154, 172-195 and 198 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

a. Claim 154 is indefinite in the recitation of HP130, HP239, HP 108.264, HP 115.140, HP 152.197, HP 110.662, HP 144.141, HP 108.371, HP135.108, HP 151.316, HP 117.372, HP 37/33, HP3/17, HP 201 and HP 102 because their characteristics are not known. The use of "HP 130, HP 239, HP 108.264, HP 115.140, HP 152.197, HP 110.662, HP 144.141, HP 108.371, HP135.108, HP 151.316, HP 117.372, HP 37/33, HP3/17, HP 201 and HP 102" as the sole means of identifying the claimed monoclonal

antibodies renders the claim indefinite because "HP130, HP 239, HP 108.264, HP 115.140, HP 152.197, HP 110.662, HP 144.141, HP 108.371, HP 135.108, HP 151.316, HP 117.372, HP 37/33, HP3/17, HP 201 and HP 102" are merely laboratory designations which do not clearly define the claimed product, since different laboratories may use the same laboratory designations to define completely distinct monoclonal antibodies.

b. Claim 10 is indefinite in the recitation of "The isolated antibody of claim 1 comprising a polyclonal antibody" because it is not clear what is meant, *i.e.,* how an isolated antibody can comprise a polyclonal antibody (*i.e.,* a polyclonal antibody is not isolated, but is rather a polyclonal antiserum.

c. Claims 180-184, 192-195 and 198 recite the limitation "The isolated molecule". This limitation lacks antecedent basis in the base claims as the base claims recite "The isolated antibody."

13. For the purpose of prior art rejections, the filing date of the instant claims is deemed to be the filing date of the instant application, *i.e.,* 5/20/06, as the parent applications do not support the claimed limitations of the instant application, as enunciated supra at item #8 of this Office Action.

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 1, 9-22, 24, 32, 142, 146, 151-154, 172-195 and 198 are rejected under 35 U.S.C. 102(b) as being anticipated by US 20040213789 A1 (IDS reference, publication date of 10/28/04).

US 20040213789 A1 discloses the monoclonal antibody HP 3/17 that was raised against synthetic peptide pep9 (RPGKKVWLGETSSAY) that is identical to SEQ ID NO: 9 of the instant claims, said peptide contains the catalytic nucleophilic residue of the active site of heparanase, said heparanase is 100% identical to the heparanase consisting of SEQ ID NO: 4 of the instant claims ([0322], [0267] and SEQ ID NO: 4 of the sequence listing). US 20040213789 A1 discloses that the antibody of the present

invention is linked to a drug such as an anti-cancerous drug such as a radio isotope directly or indirectly, including via a liposome, or to an imageable marker such as a radioisotope to be used for external, endoscopic or laparoscopic imaging, and that the resulting complex can be used to target a drug to a patient or as an imaging/treating complex *in vivo*, *i.e.*, it can be used in the form of a pharmaceutical composition [0203]. US 20040213789 A1 discloses the heparanase polypeptides SEQ ID NO: 1-5 and 11 and heparanase epitopes SEQ ID NO: 6-10 ([0031], [0032], [0202], [0203]). US 20040213789 A1 discloses that SEQ ID NO: 9 of the art reference (*i.e.*, pep9) is a catalytic nucleophilic site of heparanase (especially ([0145] and [0148]). That the antibody may bind to and/or be elicited by an epitope that is a heparin-sulfate binding site flanking region such as SEQ ID NO: 6), a proton donor site (such as SEQ ID NO: 8), a catalytic nucleophilic site (such as SEQ ID NO:9), an active site and binding site linking region (such as SEQ ID NO: 10) and a C-terminal sequence of heparanase P8 subunit (such as SEQ ID NO: 7). US 20040213789 A1 also discloses crude or affinity purified polyclonal antibodies, humanized or chimeric antibodies, Fab fragments or single chain antibodies, and the hybridomas producing the monoclonal antibodies. US 20040213789 A1 discloses all the monoclonal antibodies recited in instant claims 154 and 172. US 20040213789 A1 discloses the monoclonal antibody may be immobilized (especially [0038]-[0040], [0042], [0043], [0046], [0047], [0049], [0053], [0055], [0102], [0119], [0144], [0152], [0154], [0163], [0263]-[0265] and claims).

Claims 20 and 21 are included in this rejection because the recitation of how the heparanase protein is purified or made carries no patentable weight in this product claim.

16. Claims 1, 10-15, 17, 18, 20-22, 24, 142, 146, 152-154, 172-182, 185-195 and 198 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,177,545 B1.

U.S. Patent No. 6,177,545 B1 discloses complexes comprising anti-heparanase monoclonal or crude or affinity-purified polyclonal antibodies linked directly or indirectly, including via a liposome, to a drug, including an anti-cancerous drug, or to an imageable radio-isotope, wherein external radioimaging, endoscopic or laparoscopic imaging are accomplished using said complexes, or wherein a luminescent or fluorescent imageable molecule may be linked to the antibody. U.S. Patent No. 6,177,545 B1 discloses that the antibody may be humanized, chimeric, labeled, single chain or Fab. U.S. Patent No. 6,177,545 B1 discloses hybridomas producing said anti-heparanase monoclonal antibodies. Patent No. 6,177,545 B1 discloses that the antibodies specifically bind at least one epitope of a heparanase protein having an amino acid sequence as set forth in SEQ ID NO: 2 which is 99.9% identical to SEQ ID NO: 4 of the instant claims. U.S. Patent No. 6,177,545 B1 discloses HP-130 and HP-239 (see entire reference). It is noted by the Examiner that it is an inherent property of the art antibodies that they

would cross-react with SEQ ID NO: 4 of the instant claims since the degree of identity between the art heparanase and the heparanase recited in the instant is extremely high.

17. Claims 1, 10-15, 17, 18, 20-22, 24, 142, 146, 152-154, 172-182, 185-195 and 198 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,049,407 B2.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

U.S. Patent No. 7,049,407 B2 discloses complexes comprising anti-heparanase monoclonal or crude or affinity-purified polyclonal antibodies linked directly or indirectly, including via a liposome, to a drug, including an anti-cancerous drug, or to an imageable radio-isotope, wherein external radioimaging, endoscopic or laparoscopic imaging are accomplished using said complexes, or wherein a luminescent or fluorescent imageable molecule may be linked to the antibody. U.S. Patent No. 7,049,407 B2 discloses that the antibody may be humanized, chimeric, labeled, single chain or Fab. U.S. Patent No. 7,049,407 B2 discloses hybridomas producing said anti-heparanase monoclonal antibodies. Patent No. 7,049,407 B2 discloses that the antibodies specifically bind at least one epitope of a heparanase protein having an amino acid sequence as set forth in SEQ ID NO: 2 which is 99.9% identical to SEQ ID NO: 4 of the instant claims. U.S. Patent No. 7,049,407 B2 discloses HP-130 and HP-239 (see entire reference). It is noted by the Examiner that it is an inherent property of the art antibodies that they would cross-react with SEQ ID NO: 4 of the instant claims since the degree of identity between the art heparanase and the heparanase recited in the instant is extremely high

18. Claims 1, 10-15, 17, 18, 20-22, 24, 142, 146, 152-154, 172-182, 185-195 and 198 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,177,545.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

U.S. Patent No. 6,177,545 B1 discloses complexes comprising anti-heparanase monoclonal or crude or affinity-purified polyclonal antibodies linked directly or indirectly, including via a liposome, to a drug, including an anti-cancerous drug, or to an imageable radio-isotope, wherein external radioimaging, endoscopic or laparoscopic imaging are accomplished using said complexes, or wherein a luminescent or fluorescent imageable molecule may be linked to the antibody. U.S. Patent No. 6,177,545 B1 discloses that the antibody may be humanized, chimeric, labeled, single chain or Fab. U.S. Patent No. 6,177,545 B1 discloses hybridomas producing said anti-heparanase monoclonal

antibodies. Patent No. 6,177,545 B1 discloses that the antibodies specifically bind at least one epitope of a heparanase protein having an amino acid sequence as set forth in SEQ ID NO: 2 which is 99.9% identical to SEQ ID NO: 4 of the instant claims. U.S. Patent No. 6,177,545 B1 discloses HP-130 and HP-239 (see entire reference). It is noted by the Examiner that it is an inherent property of the art antibodies that they would cross-react with SEQ ID NO: 4 of the instant claims since the degree of identity between the art heparanase and the heparanase recited in the instant is extremely high

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claims 1, 9, 18-22, 24, 32, 142, 146, 151, 152, 154, 172, 173 174, 176-178, 185, 186, and 188-190 are rejected under 35 U.S.C. 103(a) as being obvious over US 20030236215 A1 in view of Payne (Cancer Cell, 2003, 3: 207-212).

> The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

US 20030236215 A1 discloses the monoclonal antibody HP 3/17 that was raised against synthetic peptide pep9 (RPGKKVWLGETSSAY) that is identical to SEQ ID NO: 9 of the instant claims, said peptide contains the catalytic nucleophilic residue of the active site of heparanase and binds native heparanase [0322]. US 20030236215 A1 further discloses that antibodies specific for heparanase are expected to be in common use in basic research of such conditions as autoimmunity, renal failure, metastatic cancer, inflammation, angiogenesis, restenosis, atherosclerosis, neurodegenerative diseases and viral infections [0025]. US 20030236215 A1 discloses that heparanase is expressed by certain cancer cells such as pre-B and B cell lymphomas, but not by resting normal B lymphocytes [0020]. US 20030236215 A1 discloses pharmaceutical compositions comprising either DNA encoding heparanase or heparanase protein for eliciting antibody production including *in vivo* for combating inflammatory reactions and

cancer, and further comprising a pharmaceutically acceptable carrier [0185], [0189], [0200].

US 20030236215 A1 does not disclose a complex of the antibody linked to a drug or imageable marker, nor said complex in a pharmaceutical composition.

Payne teaches therapeutic immunoconjugates consisting of a monoclonal antibody linked directly or indirectly to a drug or a radioisotope, including wherein the drug or radioisotope are anti-cancerous. Payne teaches that the antibody may be chimeric or humanized or may be scFv in order to avoid HAMA response to non-human antibody components (see entire reference).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have linked mAb 3/17 disclosed by US 20030236215 A1 to an anti-cancer drug or radioisotope as taught by Payne for other antibodies that bind to tumor cells.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this in order to engage in basic research of treating the conditions disclosed by US 20030236215 A1 such as cancer by passive administration of a complex of the 3/17 anti-heparanase monoclonal antibody linked to an anti-cancer drug or radioisotope as taught by Payne for other monoclonal antibodies specific for proteins expressed by cancer cells.

Claims 20 and 21 are included in this rejection because the recitation of how the heparanase protein is purified or made carries no patentable weight in this product claims.

The instant claims 154 and 172 are included in this rejection because while US 20030236215 A1 does not disclose that monoclonal antibody 3/17 is monoclonal antibody HP 3/17 recited in the instant claims, it does disclose that the monoclonal antibody was elicited by the same peptide pep9 for the HP 3/17 monoclonal antibody recited in the said claims. In addition, US 20030236215 A1 discloses that the antibodies were elicited by SEQ ID NO: 9 of the instant claims, which is a subsequence of SEQ ID NO: 4 of the instant claims, *i.e.,* is human heparanase).

Therefore the claimed antibody appears to be the similar to the antibody of the prior art absent a showing of unobvious differences. Since the Patent Office does not have the facilities for examining and comparing the composition of the instant invention to those of the prior art, the burden is on Applicant to show an unobvious distinction between the antibody of the instant invention and that of the prior art. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

21. Claims 1, 9-22, 24, 32, 142, 146, 151-154, 172-174, 176-186, 188-195 and 198 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,562,950 B2 in view of Payne (Cancer Cell, 2003, 3: 207-212).

> The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

U.S. Patent No. 6,562,950 B2 discloses both a polyclonal antiserum or a monoclonal antibody elicited by and binding to heparanase protein having an amino acid sequence as set forth in SEQ ID NO: 1, including wherein said antibody neutralizes heparanase activity, and pharmaceutical composition comprising the monoclonal antibody (SEQ ID NO: 1 is 99.9% identical to SEQ ID NO: 4 of the instant claims). U.S. Patent No. 6,562,950 B2 discloses that metastatic potential of tumors is correlated with increased heparanase expression. U.S. Patent No. 6,562,950 B2 discloses that the antibody can be chimeric, humanized, single chain or Fab. U.S. Patent No. 6,562,950 B2 discloses epitope mapping of the monoclonal antibodies using western blotting. U.S. Patent No. 6,562,950 B2 discloses monoclonal antibodies elicited by the C-terminal portion, the antibodies HP-239 binds in the portion of the sequence of heparanase protein SEQ ID NO: 4 between amino acid residues 130 and 230 and HP-130 binds to an epitope of heparanase protein SEQ ID NO: 4 in the region defined by amino acid residues 465-543. U.S. Patent No. 6,562,950 B2 discloses hybridomas producing such monoclonal antibodies (see entire reference including claims).

U.S. Patent No. 6,562,950 B2 does not disclose the antibody linked to a drug or an imageable molecule that is a radio-isotope.

Payne teaches therapeutic immunoconjugates consisting of a monoclonal antibody linked directly or indirectly to a drug or a radioisotope, including wherein the drug or radioisotope are anti-cancerous. Payne teaches that the antibody may be chimeric or humanized or may be scFv in order to avoid HAMA response to non-human antibody components (see entire reference).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have linked the mAb or the polyclonal antibodies in the antiserum disclosed by U.S. Patent No. 6,562,950 B2 to an anti-cancer drug or radioisotope as taught by Payne for other antibodies that bind to tumor cells.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this in order to engage in basic research of treating the conditions such as cancer by passive administration of a complex of the anti-heparanase monoclonal antibody linked to an anti-cancer drug or radioisotope as taught by Payne for other monoclonal antibodies specific for proteins expressed by cancer cells.

Claims 20 and 21 are included in this rejection because the recitation of how the heparanase protein is purified or made carries no patentable weight in this product claims.

It would have been prima facie obvious to one of ordinary skill in the art to have immobilized the antibody complex in order to epitope map as disclosed by U.S. Patent No. 6,562,950 B2.

It would have been prima facie obvious to one of ordinary skill in the art to have used an imageable molecule that is fluorescent or luminescent for purposes of detecting the target of antibody binding.

Although U.S. Patent No. 6,562,950 B2 does not disclose SEQ ID NO: 6-10, claims 9, 32 and 151 are included in this rejection because SEQ ID NO: 6 and 8-10 are present in the C-terminal portion of heparanase protein and U.S. Patent No. 6,562,950 B2 discloses monoclonal antibodies elicited by the C-terminal portion, the antibodies HP-239 binds in the portion of the sequence of heparanase protein SEQ ID NO: 4 between amino acid residues 130 and 230 and HP-130 binds to an epitope of heparanase protein SEQ ID NO: 4 in the region defined by amino acid residues 465-543.

Therefore the claimed antibody appears to be the similar to the antibody of the prior art absent a showing of unobvious differences. Since the Patent Office does not have the facilities for examining and comparing the composition of the instant invention to those of the prior art, the burden is on Applicant to show an unobvious distinction between the antibody of the instant invention and that of the prior art. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

22. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

23. Claims 1, 9, 12-22, 24, 32, 142, 146, 151-153, 173, 174, 176-182, 185, 186, 188-193 and 198 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,562,950 B2 (IDS reference) in view of Payne (Cancer Cell, 2003, 3: 207-212).

The claims of U.S. Patent No. 6,562,950 B2 recite a monoclonal antibody (and method of making said antibody) elicited by at least one epitope of a heparanase protein having an amino acid sequence as set forth in SEQ ID NO: 1 wherein said antibody neutralizes heparanase activity, as recited in the said claims, and pharmaceutical composition thereof, wherein the monoclonal antibody is elicited by at least one epitope of a heparanase protein having an amino acid sequence as set forth in SEQ ID NO: 1, said SEQ ID NO: 1 being 99.9% identical to SEQ ID NO: 4 of the instant claims. Thus, as the heparanase of '950 has extremely high sequence identity to the heparanase that is SEQ ID NO: 4, the antibodies recited in '950 would be expected to cross-react with SEQ ID NO: 4.

Claims 1-27 of U.S. Patent No. 6,562,950 B2 do not recite wherein the antibody is linked to a drug or an imageable molecule.

Payne teaches therapeutic immunoconjugates consisting of a monoclonal antibody linked directly or indirectly to a drug or a radioisotope, including wherein the drug or radioisotope are anti-cancerous. Payne teaches that the antibody may be chimeric or humanized or may be scFv in order to avoid HAMA response to non-human antibody components (see entire reference).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have linked the mAb disclosed by U.S. Patent No. 6,562,950 B2 to an anti-cancer drug or radioisotope as taught by Payne for other antibodies that bind to tumor cells.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this in order to engage in basic research of treating the conditions such as cancer by passive administration of a complex of the anti-heparanase monoclonal antibody linked to an anti-cancer drug or radioisotope as taught by Payne for other monoclonal antibodies specific for proteins expressed by cancer cells.

Claims 20 and 21 are included in this rejection because the recitation of how the heparanase protein is purified or made carries no patentable weight in this product claims.

Claims 9, 32 and 151 are included in this rejection because SEQ ID NO: 6 and 8-10 recited in the said claims are present in the C-terminal portion of heparanase protein.

Payne teaches therapeutic immunoconjugates consisting of a monoclonal antibody linked directly or indirectly to a drug or a radioisotope, including wherein the drug or radioisotope are anti-cancerous. Payne teaches that the antibody may be chimeric or humanized or may be scFv in order to avoid HAMA response to non-human antibody components (see entire reference).

Claims 181 and 182 are included in this rejection because it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a molecule that is endoscopically or laparoscopically imageable in order to resect a tumor.

Claim 14 is included in this rejection because a Fab fragment is an obvious variant to utilize when it is desirable to avoid the HAMA response taught by Payne.

Claim 16 is included in this rejection because it would have been obvious to one of ordinary skill in the art at the time the invention was made to have immobilized the antibody conjugate in order to perform *in vitro* diagnostic testing or isolation.

24. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned U.S. Patent No. 6,562,950 B2, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the

commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

25. Claims 1, 10-18, 20-22, 24, 142, 146, 152, 153, 173-195 and 198 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,177,545 B1 in view of Payne (Cancer Cell, 2003, 3: 207-212).

Claims 1-10 of U.S. Patent No. 6,177,545 B1 recite an antibody, including monoclonal, that specifically binds at least one epitope of a heparanase protein, said protein having an amino acid sequence as set forth in SEQ ID NO: 2 (which is 99.9% identical to that of SEQ ID NO: 4 recited in the instant claims), including wherein the monoclonal antibody is claimed by the steps comprising making the hybridoma that produces it. Thus, as the heparanase of '545 has extremely high sequence identity to the heparanase that is SEQ ID NO: 4, the antibodies recited in '545 would be expected to cross-react with SEQ ID NO: 4.

Claims 1-10 of U.S. Patent No. 6,177,545 B1 do not recite wherein the antibody is linked to a drug or imageable molecule, nor wherein the drug or radioisotope are anti-cancerous and wherein the antibody may be chimeric or humanized or may by scFv.

Payne teaches therapeutic immunoconjugates consisting of a monoclonal antibody linked directly or indirectly to a drug or a radioisotope, including wherein the drug or radioisotope are anti-cancerous. Payne teaches that the antibody may be chimeric or humanized or may be scFv in order to avoid HAMA response to non-human antibody components (see entire reference).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have linked the mAb or the polyclonal antibodies in the antiserum disclosed by U.S. Patent No. 6,177,545 B1 to an anti-cancer drug or radioisotope and to formulate it in a pharmaceutical composition as taught by Payne for other antibodies that bind to tumor cells.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this in order to engage in basic research of treating the conditions such as cancer by passive administration of a complex of the anti-heparanase monoclonal antibody linked to an anti-cancer drug or radioisotope as taught by Payne for other monoclonal antibodies specific for proteins expressed by cancer cells.

Claims 20 and 21 are included in this rejection because the recitation of how the heparanase protein is purified or made carries no patentable weight in this product claims.

Claim 16 is included in this rejection because it would have been prima facie obvious to one of ordinary skill in the art to have immobilized the antibody complex in order to epitope map the monoclonal antibodies.

Claims 183, 184, 194 and 195 are included in this rejection because it would have been prima facie obvious to one of ordinary skill in the art to have used an imageable molecule that is fluorescent or luminescent for purposes of detecting the target of antibody binding and because they are obvious variants of an imageable molecule.

Claim 14 is included in this rejection because it is an obvious variant of an antibody fragment that would have been obvious to use to avoid HAMA response.

26. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned U.S. Patent No. 6,177,545 B1, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

27. Claims 1, 10-18, 20-22, 24, 142, 146, 152, 153, 173-195 and 198 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 7,049,407 B2 in view of Payne (Cancer Cell, 2003, 3: 207-212).

Claims of U.S. Patent No. 7,049,407 B2 recite an isolated antibody, including monoclonal or crude or affinity purified polyclonal antibody, that specifically binds at least one epitope of a heparanase protein, said protein having an amino acid sequence as set forth in SEQ ID NO: 2 (which is 99.9% identical to that of SEQ ID NO: 4 recited in the instant claims), including wherein the monoclonal antibody is claimed by the steps comprising making the hybridoma that produces it. Thus, as the heparanase of '407 has extremely high sequence identity to the heparanase that is SEQ ID NO: 4, the antibodies recited in '407 would be expected to cross-react with SEQ ID NO: 4.

The claims of U.S. Patent No. 7,049,407 B2 do not recite wherein the antibody is linked to a drug or imageable molecule, nor wherein the drug or radioisotope are anti-cancerous and wherein the antibody may be chimeric or humanized or may by scFv.

Payne teaches therapeutic immunoconjugates consisting of a monoclonal antibody linked directly or indirectly to a drug or a radioisotope, including wherein the drug or radioisotope are anti-cancerous. Payne teaches that the antibody may be chimeric or humanized or may be scFv in order to avoid HAMA response to non-human antibody components (see entire reference).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have linked the mAb or the polyclonal antibodies in the antiserum disclosed by U.S. Patent No. 7,049,407 B2 to an anti-cancer drug or radioisotope and to formulate it in a pharmaceutical composition as taught by Payne for other antibodies that bind to tumor cells.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this in order to engage in basic research of treating the conditions such as cancer by passive administration of a complex of the anti-heparanase monoclonal antibody linked to an anti-cancer drug or radioisotope as taught by Payne for other monoclonal antibodies specific for proteins expressed by cancer cells.

Claims 20 and 21 are included in this rejection because the recitation of how the heparanase protein is purified or made carries no patentable weight in this product claims.

Claim 16 is included in this rejection because it would have been prima facie obvious to one of ordinary skill in the art to have immobilized the antibody complex in order to epitope map the monoclonal antibodies.

Claims 183, 184, 194 and 195 are included in this rejection because it would have been prima facie obvious to one of ordinary skill in the art to have used an imageable molecule that is fluorescent or luminescent for purposes of detecting the target of antibody binding and because they are obvious variants of an imageable molecule.

Claim 14 is included in this rejection because it is an obvious variant of an antibody fragment that would have been obvious to use to avoid HAMA response.

Claims 142, 146 and 151-153 are included in this rejection because it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a pharmaceutical composition comprising the antibody for research purposes for investigating treating conditions such as cancer.

28. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned U.S. Patent No. 7,049,407 B2, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

29. Claims 1, 12-18, 24, 179-184, 191-195 and 198 are objected to because of the following informalities:

- Claims 1 and 24 recite "An isolated antibody…and a drug or imageable molecule linked to said antibody." The claim appears to be drawn to an immunoconjugate, not to an isolated antibody.
- Claim 12 recites "The isolated antibody...comprising a chimeric antibody." The claim appears to be drawn to a chimeric antibody rather than to an isolated antibody that comprises another component such as an antibody that is a chimeric antibody.
- Claim 13 recites "The isolated antibody…comprising a humanized antibody." The claim appears t be drawn to a humanized antibody rather than to an isolated antibody comprises another component such as an antibody that is a humanized antibody.
- Claim 14 recites "The isolated antibody…comprising an Fab fragment." The claim appears to be drawn to an antibody that is a Fab fragment rather than to an isolated antibody can comprise another component such as an antibody that is a Fab fragment of antibody.
- Claim 15 recites "The isolated antibody…comprising an a single chain antibody." The claim appears to be drawn to an isolated antibody rather than to an antibody that comprises another component such as an antibody that is single chain antibody.
- Claim 16 recites "The isolated antibody…comprising an immobilized antibody." The claim appears to be drawn to an immobilized antibody rather

than to an isolated antibody can comprise another component such as an antibody that is an immobilized antibody.

- Claim 17 recites "The isolated antibody...comprising a labeled antibody." The claim appears to be drawn to a labeled antibody rather than to an isolated antibody that comprises another component such as an antibody that is a labeled antibody.
- Claim 18 recites "The isolated antibody...comprising a monoclonal antibody." The claim appears to be drawn to a monoclonal antibody rather than to an isolated antibody that comprises another component such as an antibody that is a monoclonal antibody.
- Claims 179 and 191 recite "The isolated antibody...which is linked to an imageable molecule." The claim appears to be drawn to an immunoconjugate rather than to an isolated antibody that comprises another component such as an imageable molecule.

Appropriate correction is required.

30. No claim is allowed.

31. With regard to Applicant's Form 1449 filed:

- 1/1/09: references 16-22 have been crossed-out because not all pages of the cited references have been submitted.
- 1/18/07: reference 107 was not provided, references 154, 179, 239 are not complete citations (are missing a publication date), reference 318 is not a correct citation listed name is not the author.
- 3/27/09: references 5, 31-33 have not been considered because they either have not been submitted by Applicant or they can not be located, reference 36 is a duplicate listing, and references 42-48 and 86 have not been considered because the English language translation of each is not a certified translation.

32. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marianne DiBrino whose telephone number is 571-272-0842. The Examiner can normally be reached on Monday, Tuesday, Thursday and Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Ram Shukla, can be reached on 571-272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Group 1640
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September 25, 2009

/Michael Szperka/
Primary Examiner, Art Unit 1644